

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 27 MAR 2006

WIPO

PCT

Applicant's or agent's file reference 2005PCT/003/TE		<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/IT2005/000212		International filing date (day/month/year) 13.04.2005	Priority date (day/month/year) 16.04.2004	
International Patent Classification (IPC) or national classification and IPC B41J3/407, B41J15/04, B41J32/00, B41J15/16, B41J33/16, B41J35/36				
Applicant E C O B A G S S.R.L. et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  09.11.2005		Date of completion of this report  24.03.2006		
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Brännström, S  Telephone No. +49 89 2399-		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/IT2005/000212

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-4 as originally filed

**Claims, Numbers**

1-4 as originally filed

**Drawings, Sheets**

1/4-4/4 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/IT2005/000212

---

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

1. Statement

Novelty (N)	Yes: Claims	1-4
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-4
Industrial applicability (IA)	Yes: Claims	1-4
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

Reference is made to the following documents:

D1: EP-A-0625427

D2: US-A-2002/006303

D3: US-B-6428225

**Re Item V.**

1. Claim 1

1.1 Claim 1 does not fulfill the requirements of Article 6 PCT for the following reasons:

- the claim 1 seems to define four different alternatives and is therefore not concise,
- the term "the cassette" is used to refer to different cassettes, it is therefore not clear to which cassette the term "the cassette" refers,
- the claim first defines "printing ribbons" and "receiving ribbons", thereafter the claim refers to "the ribbon medium". It is not clear if "the ribbon medium" refers to the printing ribbon, the receiving ribbon or both,
- the claim defines one cassette as having a "front part" and a "rear part". These terms are relative terms without a well-recognised meaning and leave the reader in doubt as to the meaning of the technical features to which they refer.

1.2 Insofar as can be understood, claim 1 defines the following four alternatives (A1-A4):

- a thermal transfer printer comprising
- an enclosing structure complete with motor drives for printing ribbons and receiving ribbons adapted to be joined in a thermal printhead;
- two externally motorised driving devices, which also serve as a guide for introducing at least one cassette;
- a thermal printhead whose position can be adjusted via a device with which it is integral;
- a series of idle rollers;
- a series of motorised rollers;
- a rubber-coated drive roller; and
- A1 wherein the printing ribbon is contained in a cassette which has a shape and

- size depending on the types of ribbon and is adapted to accommodate a take-up core and spool of the printing ribbon, the take-up core and spool of the printing ribbon having a central hole adapted to receive a driving device;
- A2 wherein the receiving ribbon is contained in a cassette which has an asymmetric conformation such as to contain a take-up core and spool of the receiving ribbon, the take-up core and spool of the receiving ribbon having a central hole adapted to receive a driving device;
- A3 wherein the printing ribbon is contained in a cassette which has a shape and size depending on the types of ribbon and is adapted to accommodate a take-up core and spool of the printing ribbon, the take-up core and spool of the printing ribbon having a central hole adapted to receive a driving device, and the receiving ribbon is contained in a cassette which has an asymmetric conformation such as to contain a take-up core and spool of the receiving ribbon, the take-up core and spool of the receiving ribbon having a central hole adapted to receive a driving device;
- A4 wherein the printing ribbon and the receiving ribbon are contained in one common cassette which has a composite form, in order that one part is adapted to contain a take-up core and spool of the printing ribbon while the other part is adapted to hold a take-up core and spool of the receiving ribbon, the take-up core and spool of the both ribbons having a central hole adapted to receive a respective driving device.

- 1.3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

It is noted that claim 1 is a juxtaposition of the following sets of features F1-F3, which do not interact to produce a synergistic effect. Therefore, if each of these sets of features is known or obvious, the claim as a whole is not inventive (see also PCT/GL/ISPE/1, 13.05).

- F1: a cassette according to any one of alternatives A1-A4 and two externally motorised driving devices which also serve as a guide for introducing the cassette. These features relate to how the cassette is attached in the printer.
- F2: a thermal printhead whose position may be adjusted via a device with which it is

integral. This feature relates to the threading of the printing ribbon in the printer.  
F3: a series of idle rollers, a series of motorised rollers and a rubber-coated drive roller. These features relate to the feeding of the receiving ribbon in the printer.

Features F1 with a cassette according to alternative A1 is disclosed in D1 and D2.

Features F1 with a cassette according to alternative A2 is disclosed in D3.

Features F1 with a cassette according to alternative A3 differs from the disclosure of D3 in that a cassette and driving devices for a printing ribbon is also provided. The printer of D3 is a label printer. It is well-known in the art, e.g. from D2, to use thermal printers with printing ribbons to print labels. It is further known from D2 to provide the printing ribbon in a cassette in order to facilitate handling and changing of the printing ribbon, and to provide the printer with a motorised driving device for rewinding the printing ribbon and for facilitating insertion of the cassette into the printer. To provide the printer of D3 with a printing ribbon cassette and dedicated driving devices as disclosed in D2 thus comes within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen.

Features F1 with a cassette according to alternative A4 differs from the disclosure of D1 in that a take-up core and a dedicated driving device is provided for the receiving ribbon. However, it is known from D3 to provide a take-up core and a driving device for rewinding at least the backing of the printed receiving ribbon. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to the printer of D1.

Feature F2 is disclosed in D1.

Features F3 differs from the disclosure of D2 in that a series of idle rollers is provided. It is well-known in the art to provide idle rollers for e.g. guiding a ribbon in a printer. The skilled person would therefore regard it as a normal design option, without inventive merit, to include idle rollers in the printer of D2 to guide the receiving ribbon.

All the features F1-F3 are known from or rendered obvious by documents D1-D3. The subject-matter of claim 1 does therefore not involve an inventive step (Article 33(3) PCT).

2. The dependent claims

- 2.1 With respect to dependent claim 2, it is noted that the claim is not supported by the description as required by Article 6 PCT. Claim 2 defines "devices (6) for rewinding and checking the ribbons for wear", however, the description (p.3, l.12-15) states that "6 and 6' in the rest position indicate a device ... which extracts the ribbon from the cassette and feeds it out". This inconsistency between the claim and the description leads to doubt concerning the matter for which protection is sought. It is furthermore noted that, in view of the description and drawings, it is not clear how the device 6 could function to rewind and check the ribbon for wear.
- 2.2 Dependent claims 3 and 4 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see documents D1-D3 and the corresponding passages cited in the search report.